

[6] WHAT IS CLAIMED:

1. An enhanced and improved diamond circular saw blade, comprising welding and jointing the periphery of a circular steel blade having an axle bore and a plurality of arc-shaped copper alloy metal-sheets, wherein each arc-shaped copper alloy metal-sheet comprises a plurality of openings, which provide the space required to accommodate a plurality of diamond particles, wherein the width of an opening is somewhat wider than the diameter of an individual diamond particle, wherein when the diamond particles are placed inside each opening of the copper alloy metal-sheets, a pair of molds is used to compress the top and the bottom of a plurality of metal teeth between adjacent openings simultaneously, wherein the metal teeth between adjacent openings are deformed by compressing this pair of molds, so as to squeeze along the direction of these openings and to enclose and hold the diamond particles, wherein the surface is of an indentation-shaped saw plate, so as to have an un-deformed diamond circular saw blade of high performance in rapid cutting.